UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

10/632,997

Confirmation No.: 8974

Applicants:

Wang et al.

Filed:

August 1, 2003

TC/A.AU.:

1645

Examiner:

Unassigned

Docket No.:

08841.105020 PHA 1070 US

Customer No.:

20786

Title:

Compounds with The Bicyclo [4.2.1] Nonane System for the Treatment of

Flaviviridae Infections

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

Sir:

The citation of information on the attached Form PTO-1449, "List of Art Cited by Applicant" is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. Copies of all references are enclosed. The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

Applicants do not believe any fees are due because this paper is submitted before the mailing of a first Office action on the merits of the application, as under 37 C.F.R. § 1.97(b)(3). However, the Commissioner is hereby authorized to charge any fees due or credit any overpayment, to Deposit Account No. 11-0980.

Respectfully submitted,

Madeline I. Johnston Reg. No/36,174

King, & Spalding, LLP

191 Peachtree Street, N.E., Atlanta, GA 30303

Office: (404)572-4600/Fax: 404-572-5145

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Posta Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, YA 22313-1450, on

Tisha Hardrick

3400089 1

Please type a plus sign (+) inside this box

 \blacksquare

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

1995, no persons ar ired to respond to a collection of information unless it contains a valid OMB control number. Under the Paperwork Reduction A

Substitute for form 1449A/PTO

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

7	Complete if Known		
Application Number	10/632,997		
Filing Date	August 1, 2003		
First Named Inventor	Peiyuan Wang et al.		
Group Art Unit	1645		
Examiner Name	Unassigned		
Attorney Docket Number	08841.105020 PHA 1070 US		

3399974 1

U.S. PATENT DOCUMENTS									
Examiner Initials *	Cite No. 1	U.S. Patent Docu Number	ment Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear	T ⁶		
	AA	5,026,687		Yarchoan et al.	06-25-1991	_			
	AB	5,491,135		Blough	02-13-1996		T		
	AC	5,496,546		Wang et al.	03-05-1996		Ī		
	AD	5,633,388		Diana et al.	05-27-1997				
	AE	5,725,859		Omer	03-10-1998				
	AF	5,830,905		Diana et al.	11-03-1998				
	AG	5,837,257		Tsai et al.	11-17-1998				
	AH	5,846,964		Ozeki	12-08-1998		1		
	ΑI	5,849,800		Smith	12-15-1998				
	AJ	5,858,389		Elsherbini	01-12-1999		1		
	AK	5,891,874		Colacino et al.	04-06-1999		1		
	AL	5,922,757		Chojkier	07-13-1999		1		
	AM	6,030,960		Morris-Natschke et al.	02-29-2000		1		
	AN	6,034,134		Gold et al.	03-07-2000		1		
	AO	6,056,961		Lavie et al.	05-02-2000	• • • • • • • • • • • • • • • • • • • •	1		
	AP	6,573,248	B2	Ramasamy et al.	06-03-2003		1		
	AQ	2002/0055483	A1	Watanabe et al.	05-09-2002		1		
	AR	2002/0147160	A1	Bhat et al.	10-10-2002		1		
	AS	2003/0008841	A1	Devos et al.	01-09-2003		1		
	AT	2003/0028013	A1	Wang et al.	02-06-2003				
	AU	2003/0050229	A1	Sommadossi <i>et al</i> .	03-13-2003	` <u>`</u>	1		
	AV	2003/0060400	A1	LaColla et al.	03-27-2003				
-	AW	2003/0083307	A1	Devos et al.	05-01-2003		T		
	AX	2003/0087873	A1	Stuyver et al.	05-08-2003		1		

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 10/31/2002. OMB 0651-0031 Please type a plus sign (+) inside this box → 田 FEB 1 3 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction A quired to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

Sheet

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) 2 3

>	Complete if Known
Application Number	10/632,997
Filing Date	August 1, 2003
First Named Inventor	Peiyuan Wang et al.
Group Art Unit	1645
Examiner Name	Unassigned
Attorney Docket Number	08841.105020 PHA 1070 US

3399974 1

				FOREI	GN PATENT DOCUMENTS			
Examiner Initials *	Cite No. ¹	Fo Office ³		ment Code ² known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
	BA	FR	2,662,165 '	A1 -	" Univ Pierre et Marie Curie	11-22-1991		\prod
	BB	WO	98/16184	A2	ICN Pharmaceuticals	04-23-1998		Τ
	BC	WO	99/43691	Al V	Elliory Chrycistry	09-02-1999		Т
	BD	WO	01/32153. ·	A2 V	BioChem Pharma Inc.	05-10-2001		T
	BE	wo	01/60315	A2 🗸	BioChem Pharma Inc.	08-23-2001		
	BF	wo	01/68663	A1 V	ICN Pharmaceuticals Inc.	09-20-2001		1
	BG	wo	01/79246	A2 - V	Pharmasset, Ltd.	10-25-2001		
	BH	wo	01/90121.	A2 ' L	Novirio (Idenix Pharmaceuticals)	11-29-2001		\top
	BI	WO	01/92282	A2 u	Novirio Pharm.; UnivCagliari	06-12-2001		\top
	BJ	wo	02/003997	Al L	ICN Pharmaceuticals Inc.	01-17-2002		T
	BK	wo	02/018404	A2 -	F. Hoffmann-La Roche AG	03-07-2002		T
	BL	wo	02/032920 -	ب _{A2}	Pharmasset Ltd.	04-25-2002		1
	BM	WO	02/048165 .	A2 •	Pharmasset, Ltd.	06-20-2002		
	BN	wo	02/057287 -	A2 \	Merck; Isis Pharmaceuticals	07-25-2002		\top
	ВО	WO	02/057425 .	A2 v	Merck; Isis Pharmaceuticals	07-25-2002		T
	BP	wo	02/070533	A3	Pharmasset, Ltd.	09-12-2002		Т
	BQ	wo	02/094289	A1	F. Hoffmann-La Roche AG	11-28-2002		Т
	BR	wo	02/100415	A2	F. Hoffmann-La Roche AG	12-19-2002		T
	BS	wo	03/026589	A2	Idenix; C.N.R.S.; U. Montpelier	04-03-2003		T
	BT	WO	03/026675	Al	Novirio (Idenix Pharmaceuticals)	04-03-2003		T
	BU	wo	03/051899	Al	Ribapharm Inc.	06-26-2003		T
	BV	wo	03/061385	A1	Ribapharm Inc.	07-31-2003		T
	BW	wo	03/061576	A2	Ribapharm Inc.	07-31-2003		
	BX	wo	03/062255	A2	Ribapharm Inc.	07-31-2003		T
	BY	wo	03/062256	A1	Ribapharm Inc.	07-31-2003		T
	BZ	wo	03/062257	A1	Ribapharm Inc.	07-31-2003		T

Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Please type a plus sign (+) inside this box → ⊞ Under the Paperwork Reduction Act of the propersions

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

quired to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449A/PTO Application Number 10/632,997 SUPPLEMENTAL Filing Date August 1, 2003 INFORMATION DISCLOSURE First Named Inventor Peiyuan Wang et al. STATEMENT BY APPLICANT **Group Art Unit** 1645 **Examiner Name** Unassigned (use as many sheets as necessary) 08841.105020 PHA 1070 US Attorney Docket Number Sheet 3 3

FEB 0 3 2004

3399974 1

								حت			
	FOREIGN PATENT DOCUMENTS										
Examiner Initials *	Cite No. ¹	Office ³		ment I Code ² (known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T			
	CA	wo	03/063771	A2	Pharmasset Ltd.	08-07-2003	1 iguies 1 ippeui	╈			
	СВ	wo	03/068162	A2	Pharmasset Ltd.	08-21-2003		T			
_	CC	wo	03/072757	A2	Biota Inc.	09-04-2003					
	CD	WO	03/093290	A2_	Genelabs Technologies	11-13-2003					

	OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶				
	CE	ANDERSON, G. L., et al., "Pyridopyrimidines. 7. Ribonucleosides structurally related to the antitumor antibiotic sangivamycin," J. Org. Chem., 42(6):997-1000 (1977).					
	CF	CARROLL, Steven S. et al. "Inhibition of Hepatitis C Virus RNA Replication by 2'-Modified Nucleoside Analogs" <i>The Journal of Biological Chemistry</i> , 278(14):11979-11984 (2003).					
	CG	DYMOCK, B.W., et al., "Novel approaches to the treatment of hepatitis C virus infection," Antiviral Chemistry & Chemotherapy, 11(2):79-96 (2000).					
	СН	HARRY-O'KURU, Rogers E. et al. "2'-C-Alkylribonucleosides: Design, Synthesis, and Conformation" <i>Nucleosides & Nucleotides</i> , 16(7-9):1457-1460 (1997).					
	CI	PFLEIDERER, W., et al., "Allgemeine Synthese von Pteridin-N-8-glycosiden," Chem. Ber., 106, 317-331 (1973).					
	CJ	RIZKALLA, B.H., et al., "Pyrido[2,3-d]pyrimidines. III. Synthesis of some 8-(β-D-ribofuranosyl)pyrido[2,3-d]pyrimidines structurally related to the antibiotic sangivamycin," J. Org. Chem., 37(25):3980-3985 (1972).					

3399974 1

Examiner Signature	Date Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.